

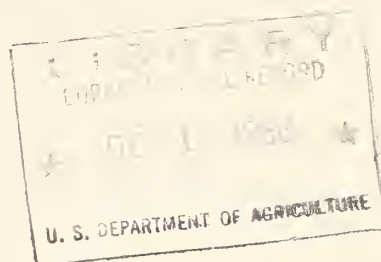
# Historic, archived document

Do not assume content reflects current  
scientific knowledge, policies, or practices.



License  
A280.39  
m 34Am

UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service  
Cotton Division  
Washington, D.C.



COTTON FIBER AND PROCESSING TEST RESULTS  
CROP OF 1958



COTTON FIBER AND PROCESSING TEST RESULTS  
CROP OF 1958

Fiber and spinning test results for 1958-crop cotton, through mid-September, generally show higher grades and longer fibers, but somewhat poorer "character" than early ginnings from the 1957 crop. The cotton is running somewhat finer and less mature than last year. The average number of neps in the East are up sharply and yarn appearance grades are lower. Fiber and yarn strengths in the central and western areas are averaging slightly lower than early harvested cotton last year.

Fiber and spinning results in this report relate to early harvested cotton in North Carolina, Mississippi and the Imperial Valley of California. Mid-season lots from Alabama, Georgia, and Central Texas are included.

North Carolina. Early season samples from North Carolina are averaging higher in grade and slightly longer in staple. The fibers are finer and average about the same in strength and maturity as last year. Breaking strength of 22s yarn was up considerably, averaging 112 in 1958 as compared with 106 for 1957. Average nep count per 100 square inches of card web was 20 (almost double the count reported last year), and the yarn appearance grades decreased to an index of 98 from 105 in 1957.

Georgia and Southern Alabama. Early and midseason samples received from Georgia and Southern Alabama continue to average slightly higher in grade, with staple length, fineness and maturity about the same as reported a year ago. Yarn strengths in Georgia are averaging slightly above last year, and in Alabama about the same as last year. Nep counts continued to be higher for 1958 cottons and yarn appearance grades slightly lower than in early 1957.

California and Arizona. Early season samples from the Imperial Valley of California and Colorado River area of Arizona show similar fiber qualities as reported last year with a tendency for the fiber strength, yarn strength, and yarn appearance grades to be on a slightly lower level for 1958 cottons.

- - - - -

Table 1.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 12-1/2 pounds per hour and a twist multiplier of 4.40, Crop of 1958

Variety	:	Qualla
State	:	Texas
Market area	:	Lockhart
Percentage of variety at gin	:	100
Period of harvest	:	Midseason

## RAW COTTON-QUALITY

Classification (official standards):	:
Grade-----designation:	Mltsp
Staple length-----inches:	7/8
Fiber length (Fibrograph):	:
Upper half mean-----inches:	.88
Uniformity-----ratio:	76
Fiber fineness and maturity:	:
Micronaire-----reading <u>1</u> /:	4.2
Fineness (Causticaire)-----ug/inch <u>2</u> /:	4.4
Maturity (" )-----index:	77
Fiber tensile strength (Pressley):	:
Zero gauge-----l,000 p.s.i.:	74
" " -----grams per tex <u>3</u> /:	36.6
1/8" " -----" " " " " " ::	18.2
Nonlint content: <u>4</u> /:	:
Visible waste-----percent:	3.8
Invisible waste-----"	: 1.6
Total nonlint content-----"	: 5.4
Color of raw cotton: <u>5</u> /:	:
Reflectance-----Rd:	74.5
Yellowness-----+b:	9.5
Sugar content-----percent:	0.3
Acid-alkaline value----- pH units <u>6</u> /:	6.6

## PROCESSING RESULTS

Manufacturing waste:	:	
Picker and card-----percent:	:	10.9
Neps-----per 100 sq. in. of card web:	:	13
Yarn skein strength:	:	
8s (73.8 tex)-----pounds:	:	304
22s (26.8 " )-----"	:	94
Average break factor-----7/:	:	2250
Yarn appearance:	:	
8s (73.8 tex)-----grade:	:	B
22s (26.8 " )-----"	:	C+
Average yarn appearance-----index 8/:	:	105

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958

Variety	:	Arizona 44	:	Acala 4-42	:	Coker 100W
State	:	Arizona	:	California	:	Alabama
Market area	:	Horn	:	Yuma	:	Thormal : Atmore
Percentage of variety at gin	:	100	:	95	:	100 : 100
Period of harvest	:	Early	:	Early	:	Early : Midseason
RAW COTTON QUALITY	:	:	:	:	:	:
Classification (official standards):	:	:	:	:	:	:
Grade-----designation:	:	M	:	SM	:	SM : M
Staple length-----inches:	:	1-1/16	:	1-1/16	:	1-1/32 : 1-1/16
Fiber length (Fibrograph):	:	:	:	:	:	:
Upper half mean-----inches:	:	1.06	:	1.08	:	1.06 : 1.04
Uniformity-----ratio:	:	82	:	81	:	81 : 80
Fiber fineness and maturity:	:	:	:	:	:	:
Micronaire-----reading 1/:	:	4.3	:	4.3	:	4.6 : 4.0
Fineness (Causticaire)--ug/inch 2/:	:	4.1	:	4.1	:	4.6 : 4.1
Maturity ( " )-----index:	:	80	:	80	:	79 : 76
Fiber tensile strength (Pressley):	:	:	:	:	:	:
Zero gauge-----1,000 p.s.i.:	:	84	:	93	:	94 : 75
" " -----grams per tex 3/:	:	41.6	:	46.0	:	46.5 : 37.2
1/8" " ----- " " " " " " :	:	23.6	:	23.5	:	25.2 : 20.2
Nonlint content: 4/	:	:	:	:	:	:
Visible waste-----percent:	:	1.2	:	0.9	:	1.3 : 1.5
Invisible waste----- " :	:	0.9	:	1.1	:	1.0 : 0.3
Total nonlint content----- " :	:	2.1	:	2.0	:	2.3 : 1.8
Color of raw cotton: 5/	:	:	:	:	:	:
Reflectance-----Rd:	:	74.0	:	76.5	:	77.7 : 75.7
Yellowness-----+b:	:	9.9	:	8.9	:	8.4 : 8.8
Sugar content-----percent:	:	0.2	:	0.2	:	0.3 : 0.2
Acid-alkaline value-----pH units 6/:	:	7.2	:	7.5	:	6.9 : 7.4
PROCESSING RESULTS	:	:	:	:	:	:
Manufacturing waste:	:	:	:	:	:	:
Picker and card-----percent:	:	7.8	:	6.3	:	7.4 : 7.6
Neps-----per 100 sq. in. of card web:	:	19	:	15	:	10 : 16
Yarn skein strength:	:	:	:	:	:	:
22s (26.8 tex)-----pounds:	:	127	:	125	:	135 : 111
50s (11.8 " )----- " :	:	45	:	43	:	46 : 39
Average break factor-----7/:	:	2522	:	2450	:	2635 : 2196
Yarn appearance:	:	:	:	:	:	:
22s (26.8 tex)-----grade:	:	C+	:	C+	:	B : B
50s (11.8 " )----- " :	:	C	:	D+	:	D+ : C+
Average yarn appearance---index 8/:	:	95	:	90	:	95 : 105

Continued on page 4



Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:	Coker 100 W		
State	:	Alabama	:	Georgia
Market area	:	Ft. Deposit	:	Headland : Wetumpka : Baxley
Percentage of variety at gin	:	100	:	99 : 80 : 98
Period of harvest	:	Early	:	Midseason: Midseason: Early
RAW COTTON QUALITY	:	:	:	:
Classification (official standards):	:	:	:	:
Grade-----designation:	M	: SM	:	SM : M
Staple length-----inches:	1-1/16:	1-1/16:	1-1/16:	1-1/16:
Fiber length (Fibrograph):	:	:	:	:
Upper half mean-----inches:	1.08	: 1.04	:	1.03 : 1.05
Uniformity-----ratio:	81	: 81	:	78 : 83
Fiber fineness and maturity:	:	:	:	:
Micronaire-----reading 1/:	4.5	: 4.0	:	4.1 : 3.8
Fineness (Causticaire)---ug/inch 2/:	4.9	: 4.1	:	4.1 : 4.2
Maturity ( " )-----index:	77	: 76	:	78 : 72
Fiber tensile strength (Pressley):	:	:	:	:
Zero gauge-----1,000 p.s.i.:	75	: 73	:	78 : 78
" " -----grams per tex 3/:	37.0	: 36.1	:	38.4 : 38.4
1/8" " ----- " " " :	20.7	: 20.6	:	21.4 : 21.5
Nonlint content: 4/	:	:	:	:
Visible waste-----percent:	3.1	: 1.0	:	1.5 : 1.3
Invisible waste----- "	0.7	: 0.9	:	0.7 : 0.7
Total nonlint content----- "	3.8	: 1.9	:	2.2 : 2.0
Color of raw cotton: 5/	:	:	:	:
Reflectance-----Rd:	74.8	: 77.6	:	78.3 : 76.5
Yellowness-----+b:	8.8	: 8.8	:	8.5 : 8.9
Sugar content-----percent:	0.2	: 0.2	:	0.3 : 0.2
Acid-alkaline value-----pH units 6/:	8.5	: 7.8	:	6.9 : 7.8
PROCESSING RESULTS	:	:	:	:
Manufacturing waste:	:	:	:	:
Picker and card-----percent:	8.2	: 7.5	:	7.2 : 7.0
Neps-----per 100 sq. in. of card web:	13	: 24	:	21 : 22
Yarn skein strength:	:	:	:	:
22s (26.8 tex)-----pounds:	112	: 111	:	116 : 120
50s (11.8 " )----- "	39	: 39	:	41 : 42
Average break factor-----7/:	2207	: 2196	:	2301 : 2370
Yarn appearance:	:	:	:	:
22s (26.8 tex)-----grade:	B	: C+	:	C+ : C+
50s (11.8 " )----- "	C+	: C	:	C : C
Average yarn appearance---index 8/:	105	: 95	:	95 : 95

Continued on page 5



Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:	Coker 100 W			
State	:	Georgia			
Market area	:	Baxley	:	Bellville	:Bostwick
Percentage of variety at gin	:	98	:	85	: 95
Period of harvest	:	Midseason:	Early	: Midseason:	Early
RAW COTTON QUALITY	:	:	:	:	:
Classification (official standards):	:	:	:	:	:
Grade-----designation:	M	:	SM	:	M
Staple length-----inches:	1-1/32:	:	1-1/16:	:	1-1/32:
Fiber length (Fibrograph):	:	:	:	:	:
Upper half mean-----inches:	1.01	:	1.06	:	1.02
Uniformity-----ratio:	80	:	83	:	81
Fiber fineness and maturity:	:	:	:	:	:
Micronaire-----reading <u>1</u> /:	4.0	:	3.9	:	3.6
Fineness (Causticaire)---ug/inch <u>2</u> /:	3.8	:	4.2	:	3.7
Maturity ( " )-----index:	78	:	74	:	74
Fiber tensile strength (Pressley):	:	:	:	:	:
Zero gauge-----1,000 p.s.i.:	82	:	79	:	83
" " -----grams per tex <u>3</u> /:	40.8	:	39.1	:	41.0
1/8" " ----- " " " " " " :	21.0	:	22.0	:	20.5
Nonlint content: <u>4</u> /	:	:	:	:	:
Visible waste-----percent:	1.5	:	1.1	:	1.8
Invisible waste----- " :	0.8	:	0.5	:	0.6
Total nonlint content----- " :	2.3	:	1.6	:	2.4
Color of raw cotton: <u>5</u> /	:	:	:	:	:
Reflectance-----Rd:	77.2	:	77.5	:	76.8
Yellowness-----+b:	8.1	:	8.5	:	8.2
Sugar content-----percent:	0.2	:	0.3	:	0.2
Acid-alkaline value-----pH units <u>6</u> /:	7.8	:	7.1	:	7.7
PROCESSING RESULTS	:	:	:	:	:
Manufacturing waste:	:	:	:	:	:
Picker and card-----percent:	7.7	:	6.5	:	8.1
Neps-----per 100 sq. in. of card web:	20	:	20	:	26
Yarn skein strength:	:	:	:	:	:
22s (26.8 tex)-----pounds:	117	:	122	:	121
50s (11.8 " )----- " :	41	:	43	:	42
Average break factor----- <u>7</u> /:	2312	:	2417	:	2381
Yarn appearance:	:	:	:	:	:
22s (26.8 tex)-----grade:	C+	:	B	:	C+
50s (11.8 " )----- " :	C	:	C+	:	C
Average yarn appearance----index <u>8</u> /:	95	:	105	:	95

Continued on page 6

Continued on page 7

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:	Coker 100 W			
State	:	North Carolina			
Market area	:	Laurinburg:	Lumberton:	Smithfield:	Wilson
Percentage of variety at gin	:	92	100	98	99
Period of harvest	:	Early	Early	Early	Early
RAW COTTON QUALITY					
Classification (official standards):	:	:	:	:	:
Grade-----designation:	:	M	M	M	SM
Staple length-----inches:	:	1-1/16:	1	1	1-1/16
Fiber length (Fibrograph):	:	:	:	:	:
Upper half mean-----inches:	:	1.05	.98	1.00	1.06
Uniformity-----ratio:	:	78	78	79	80
Fiber fineness and maturity:	:	:	:	:	:
Micronaire-----reading 1/:	:	3.8	4.0	4.3	4.2
Fineness (Causticaire)---ug/inch 2/:	:	4.3	4.1	4.3	4.3
Maturity ( " )-----index:	:	72	76	79	78
Fiber tensile strength (Pressley):	:	:	:	:	:
Zero gauge-----1,000 p.s.i.:	:	76	79	81	80
" " -----grams per tex 3/:	:	37.6	39.2	40.2	39.6
1/8" " ----- " " " :	:	21.8	20.1	20.9	20.7
Nonlint content: 4/	:	:	:	:	:
Visible waste-----percent:	:	1.3	1.7	1.3	1.2
Invisible waste----- " :	:	0.9	0.7	0.7	0.7
Total nonlint content----- " :	:	2.2	2.4	2.0	1.9
Color of raw cotton: 5/	:	:	:	:	:
Reflectance-----Rd:	:	73.5	73.3	73.5	78.5
Yellowness-----+b:	:	9.0	8.5	9.0	8.1
Sugar content-----percent:	:	0.1	0.2	0.1	0.1
Acid-alkaline value-----pH units 6/:	:	8.5	8.6	8.3	7.3
PROCESSING RESULTS					
Manufacturing waste:	:	:	:	:	:
Picker and card-----percent:	:	8.0	8.3	7.0	6.6
Neps-----per 100 sq. in. of card web:	:	24	23	18	14
Yarn skein strength:	:	:	:	:	:
22s (26.8 tex)-----pounds:	:	116	106	114	120
50s (11.8 " )----- " :	:	42	37	39	42
Average break factor-----7/:	:	2326	2091	2229	2370
Yarn appearance:	:	:	:	:	:
22s (26.8 tex)-----grade:	:	C+	C+	C+	C+
50s (11.8 " )----- " :	:	C+	C	C	C+
Average yarn appearance----index 8/:	:	100	95	95	100

Continued on page 8

For footnotes see page 13.

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:Coker 100W:		Deltapine 15	
State	:N.Carolina:		California	: Miss.
Market area	: Windsor	: Brawley	:Westmorland:	Fayette
Percentage of variety at gin	: 100	: 100	: 100	: 100
Period of harvest	: Early	: Early	: Early	: Early
RAW COTTON QUALITY	:	:	:	:
Classification (official standards):	:	:	:	:
Grade-----designation:	M	SM	SM	M
Staple length-----inches:	1-1/32	1-1/16	1-1/16	1-1/16
Fiber length (Fibrograph):	:	:	:	:
Upper half mean-----inches:	1.00	1.07	1.08	1.07
Uniformity-----ratio:	79	81	80	80
Fiber fineness and maturity:	:	:	:	:
Micronaire-----reading 1/:	4.4	4.7	5.0	4.8
Fineness (Causticaire)---ug/inch 2/:	4.3	4.7	4.8	4.6
Maturity ( " )-----index:	80	81	84	82
Fiber tensile strength (Pressley):	:	:	:	:
Zero gauge-----1,000 p.s.i.:	80	84	87	80
" " -----grams per tex 3/:	39.6	41.6	43.1	39.6
1/8" " ----- " " " " " " :	20.6	21.6	22.2	21.1
Nonlint content: 4/	:	:	:	:
Visible waste-----percent:	1.3	0.7	1.0	1.8
Invisible waste----- " :	0.9	1.1	1.1	1.1
Total nonlint content----- " :	2.2	1.8	2.1	2.9
Color of raw cotton: 5/	:	:	:	:
Reflectance-----Rd:	74.5	78.9	77.5	74.3
Yellowness-----+b:	8.0	8.9	9.1	8.4
Sugar content-----percent:	0.1	0.2	0.0	0.1
Acid-alkaline value-----pH units 6/:	7.6	6.8	7.4	7.8
PROCESSING RESULTS	:	:	:	:
Manufacturing waste:	:	:	:	:
Picker and card-----percent:	7.6	6.4	7.0	7.4
Neps-----per 100 sq. in. of card web:	17	8	8	9
Yarn skein strength:	:	:	:	:
22s (26.8 tex)-----pounds:	111	120	121	116
50s (11.8 " )----- " :	39	42	41	38
Average break factor-----7/:	2196	2370	2356	2226
Yarn appearance:	:	:	:	:
22s (26.8 tex)-----grade:	B	B	B	B
50s (11.8 " )----- " :	C+	C+	C	C+
Average yarn appearance-----index 8/:	105	105	100	105

Continued on page 9



Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:	Deltapine 15						
State	:	Mississippi	:	Texas				
Market area	:	Houston	:	Prentiss	:	Batesville	:	Navasota
Percentage of variety at gin	:	95	:	90	:	90	:	97
Period of harvest	:	Early	:	Early	:	Early	:	Early
RAW COTTON QUALITY	:	:	:	:	:	:	:	:
Classification (official standards):	:	:	:	:	:	:	:	:
Grade-----designation:	:	M	:	M	:	SM	:	SM
Staple length-----inches:	:	1-3/32	:	1-1/16	:	1-1/16	:	1-1/16
Fiber length (Fibrograph):	:	:	:	:	:	:	:	:
Upper half mean-----inches:	:	1.10	:	1.05	:	1.08	:	1.05
Uniformity-----ratio:	:	80	:	80	:	80	:	79
Fiber fineness and maturity:	:	:	:	:	:	:	:	:
Micronaire-----reading <u>1</u> /:	:	4.0	:	4.6	:	4.2	:	4.2
Fineness (Causticaire)---ug/inch <u>2</u> /:	:	4.1	:	4.7	:	4.1	:	4.3
Maturity ( " )-----index:	:	77	:	79	:	79	:	78
Fiber tensile strength (Pressley):	:	:	:	:	:	:	:	:
Zero gauge-----1,000 p.s.i.:	:	81	:	73	:	79	:	87
" " -----grams per tex <u>3</u> /:	:	40.1	:	36.1	:	39.1	:	43.1
1/8" " ----- " " " " :	:	21.7	:	18.3	:	22.1	:	22.5
Nonlint content: <u>4</u> /	:	:	:	:	:	:	:	:
Visible waste-----percent:	:	1.3	:	1.0	:	1.3	:	1.2
Invisible waste----- " :	:	0.9	:	0.9	:	0.8	:	0.8
Total nonlint content----- " :	:	2.2	:	1.9	:	2.1	:	2.0
Color of raw cotton: <u>5</u> /	:	:	:	:	:	:	:	:
Reflectance-----Rd:	:	76.8	:	73.0	:	78.5	:	77.7
Yellowness-----+b:	:	9.4	:	9.6	:	8.5	:	8.7
Sugar content-----percent:	:	0.1	:	0.1	:	0.3	:	0.2
Acid-alkaline value-----pH units <u>6</u> /:	:	6.9	:	8.0	:	6.9	:	7.3
PROCESSING RESULTS	:	:	:	:	:	:	:	:
Manufacturing waste:	:	:	:	:	:	:	:	:
Picker and card-----percent:	:	6.6	:	7.0	:	8.0	:	7.2
Neps-----per 100 sq. in. of card web:	:	9	:	9	:	27	:	12
Yarn skein strength:	:	:	:	:	:	:	:	:
22s (26.8 tex)-----pounds:	:	128	:	101	:	122	:	127
50s (11.8 " )----- " :	:	44	:	35	:	41	:	43
Average break factor----- <u>7</u> /:	:	2508	:	1986	:	2367	:	2472
Yarn appearance:	:	:	:	:	:	:	:	:
22s (26.8 tex)-----grade:	:	C+	:	C+	:	C	:	C+
50s (11.8 " )----- " :	:	C+	:	C	:	D+	:	C+
Average yarn appearance----index <u>8</u> /:	:	100	:	95	:	85	:	100

Continued on page 10

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:	Deltapine 15	:	Empire			
State	:	Texas	:	Georgia			
Market area	:	Navasota	:	Sugarland:Fitzgerald:Soperton			
Percentage of variety at gin:	97	:	98	:	100	:	75
Period of harvest	:	Midseason:	Midseason:	Midseason:	:	Early	
RAW COTTON QUALITY	:	:	:	:	:	:	:
Classification (official standards):	:	:	:	:	:	:	:
Grade-----designation:	SM	:	M	:	M	:	SM
Staple length-----inches:	1-1/16:	:	1-1/16:	:	1-1/32:	:	1-1/32
Fiber length (Fibrograph):	:	:	:	:	:	:	:
Upper half mean-----inches:	1.05	:	1.04	:	1.04	:	1.03
Uniformity-----ratio:	79	:	79	:	80	:	81
Fiber fineness and maturity:	:	:	:	:	:	:	:
Micronaire-----reading <u>1</u> :	4.7	:	4.3	:	4.0	:	3.7
Fineness (Causticaire)--ug/inch <u>2</u> :	4.6	:	4.3	:	4.1	:	4.2
Maturity ( " )-----index:	81	:	79	:	76	:	71
Fiber tensile strength (Pressley):	:	:	:	:	:	:	:
Zero gauge-----1,000 p.s.i.:	93	:	83	:	77	:	80
" " -----grams per tex <u>3</u> :	46.0	:	41.1	:	38.3	:	39.8
1/8" " ----- " " " " :	22.5	:	22.1	:	20.9	:	21.5
Nonlint content: <u>4</u> :	:	:	:	:	:	:	:
Visible waste-----percent:	1.1	:	1.1	:	0.8	:	0.9
Invisible waste----- " :	0.9	:	1.2	:	0.5	:	0.7
Total nonlint content----- " :	2.0	:	2.3	:	1.3	:	1.6
Color of raw cotton: <u>5</u> :	:	:	:	:	:	:	:
Reflectance-----Rd:	77.8	:	71.2	:	76.5	:	75.7
Yellowness-----+b:	8.5	:	9.4	:	8.6	:	8.7
Sugar content-----percent:	0.1	:	0.0	:	0.2	:	0.3
Acid-alkaline value-----pH units <u>6</u> :	6.8	:	8.4	:	7.9	:	7.2
PROCESSING RESULTS	:	:	:	:	:	:	:
Manufacturing waste:	:	:	:	:	:	:	:
Picker and card-----percent:	7.2	:	7.6	:	7.6	:	6.2
Neps-----per 100 sq. in. of card web:	15	:	10	:	26	:	26
Yarn skein strength:	:	:	:	:	:	:	:
22s (26.8 tex)-----pounds:	125	:	121	:	111	:	117
50s (11.8 " )----- " :	43	:	42	:	38	:	41
Average break factor----- <u>7</u> :	2450	:	2381	:	2171	:	2312
Yarn appearance:	:	:	:	:	:	:	:
22s (26.8 tex)-----grade:	B	:	B	:	C+	:	C+
50s (11.8 " )----- " :	C+	:	C+	:	C	:	C
Average yarn appearance---index <u>8</u> :	105	:	105	:	95	:	95

Continued on page 11



Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:	Lankart	:		
State	:	Texas	:		
Market area	:	Bonham	:	Cooper : Waxahachie	
Percentage of variety at gin	:	99	:	85 : 90	
Period of harvest	:	Early	:	Early : Early	
RAW COTTON QUALITY	:	:	:	:	
Classification (official standards):	:	:	:	:	
Grade-----designation:	M	:	M	:	M
Staple length-----inches:	31/32	:	31/32	:	15/16
Fiber length (Fibrograph):	:	:	:	:	:
Upper half mean-----inches:	.95	:	.97	:	.91
Uniformity-----ratio:	79	:	79	:	78
Fiber fineness and maturity:	:	:	:	:	:
Micronaire-----reading <u>1</u> /:	4.8	:	4.7	:	4.3
Fineness (Causticaire)---ug/inch <u>2</u> /:	5.0	:	4.7	:	4.5
Maturity ( " )-----index:	80	:	80	:	77
Fiber tensile strength (Pressley):	:	:	:	:	:
Zero gauge-----1,000 p.s.i.:	83	:	85	:	88
" " -----grams per tex <u>3</u> /:	41.1	:	42.1	:	43.6
1/8" " ----- " " " :	20.5	:	20.3	:	21.0
Nonlint content: <u>4</u> /	:	:	:	:	:
Visible waste-----percent:	1.6	:	1.6	:	1.5
Invisible waste----- " :	1.4	:	0.7	:	1.1
Total nonlint content----- " :	3.0	:	2.3	:	2.6
Color of raw cotton: <u>5</u> /	:	:	:	:	:
Reflectance-----Rd:	73.0	:	73.5	:	74.3
Yellowness-----+b:	9.3	:	9.5	:	9.4
Sugar content-----percent:	0.3	:	0.2	:	0.2
Acid-alkaline value-----pH units <u>6</u> /:	6.7	:	6.9	:	6.8
PROCESSING RESULTS	:	:	:	:	:
Manufacturing waste:	:	:	:	:	:
Picker and card-----percent:	8.7	:	8.1	:	8.6
Neps-----per 100 sq. in. of card web:	9	:	9	:	15
Yarn skein strength:	:	:	:	:	:
22s (26.8 tex)-----pounds:	107	:	107	:	108
50s (11.8 " )----- " :	35	:	35	:	35
Average break factor----- <u>7</u> /:	2052	:	2052	:	2063
Yarn appearance:	:	:	:	:	:
22s (26.8 tex)-----grade:	C+	:	C+	:	C+
50s (11.8 " )----- " :	C	:	D+	:	D+
Average yarn appearance----index <u>8</u> /:	95	:	90	:	90

Continued on page 12

Table 2.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds her hour and a twist multiplier of 4.00, Crop of 1958--Continued

Variety	:Northern Star:		Plains	
State	: Texas :		Alabama	
Market area	: O'Brien	: Burkville	: Florala	
Percentage of variety at gin	: 90	: 100	: 80	
Period of harvest	: Early	: Early	: Midseason	
RAW COTTON QUALITY	:	:	:	
Classification (official standards):	:	:	:	
Grade-----designation:	SM	M	M	
Staple length-----inches:	31/32	1-1/16	1-1/32	
Fiber length (Fibrograph):	:	:	:	
Upper half mean-----inches:	.98	1.07	1.05	
Uniformity-----ratio:	78	82	82	
Fiber fineness and maturity:	:	:	:	
Micronaire-----reading 1/:	4.0	4.6	3.9	
Fineness (Causticaire)---ug/inch 2/:	4.1	4.6	4.2	
Maturity ( " )-----index:	77	79	74	
Fiber tensile strength (Pressley):	:	:	:	
Zero gauge-----1,000 p.s.i.:	87	80	72	
" " -----grams per tex 3/:	43.1	39.7	35.8	
1/8" " ----- " " " " :	21.3	20.4	19.4	
Nonlint content: 4/	:	:	:	
Visible waste-----percent:	0.8	1.8	2.1	
Invisible waste----- " :	1.4	0.2	0.6	
Total nonlint content----- " :	2.2	2.0	2.7	
Color of raw cotton: 5/	:	:	:	
Reflectance-----Rd:	76.5	76.5	73.2	
Yellowness-----+b:	9.1	8.5	8.7	
Sugar content-----percent:	0.1	0.2	0.2	
Acid-alkaline value-----pH units 6/:	6.6	7.5	8.3	
PROCESSING RESULTS	:	:	:	
Manufacturing waste:	:	:	:	
Picker and card-----percent:	7.7	7.3	7.8	
Neps-----per 100 sq. in. of card web:	12	11	14	
Yarn skein strength:	:	:	:	
22s (26.8 tex)-----pounds:	118	113	104	
50s (11.8 " )----- " :	40	39	37	
Average break factor-----7/:	2298	2218	2069	
Yarn appearance:	:	:	:	
22s (26.8 tex)-----grade:	C+	B	B	
50s (11.8 " )----- " :	D+	C+	C+	
Average yarn appearance----index 8/:	90	105	105	

FOOTNOTES

- 1/ Fiber fineness and maturity in combination as measured on untreated samples using the curvilinear scale for upland cotton.
- 2/ Fineness and maturity as determined by the Causticaire method using the Micronaire instrument.
- 3/ Tex is the universal unit for designating linear density of textile materials as adopted by the International Standards Organization (ISO). A tex unit equals the weight in grams of 1,000 meters of the material.
- 4/ As determined by means of the Shirley Analyzer.
- 5/ Determined by the Nickerson-Hunter Colorimeter on raw stock.  $R_d$  values indicate percent reflectance from 0 to 100 and +b values indicate degree of yellowness.
- 6/ Values below 7.0 indicate acidity. Values above 7.0 indicate alkalinity which when associated with abnormally low sugar content may indicate fiber degradation due to weathering or from the action of micro-organisms.
- 7/ Based on yarn skein strength (number x strength) of the two yarn numbers spun.
- 8/ Based on two numbers spun. Index of average quality equals 100.

